

What is claimed is:

1. A fixing device comprising:

a contact member arranged to be able to contact one side of a recording medium on which side an unfixed toner image is carried, the toner image formed with a liquid developer including a toner dispersed in a carrier liquid; and

a pressing member pressing on the other side of said recording medium for pressing said recording medium against said contact member,

wherein said unfixed toner image is fixed to the one side of said recording medium by passing said recording medium through a nip portion defined between said contact member and said pressing member; and

wherein a nip pressure at an inlet site of said nip portion is set higher than a nip pressure at an exit site of said nip portion.

2. A fixing device as claimed in Claim 1,

wherein said contact member includes a heat roller;

wherein said pressing member includes a plurality of rollers including two nip rollers adjoining said heat roller and an endless belt run about said plural rollers and capable of moving in a cycling manner, and establishes said nip portion by holding a part of an outside surface of said endless belt in pressure contact with said heat roller by means of said two nip rollers; and

wherein out of said two nip rollers, the nip roller on the inlet side

of said nip portion has a higher pressing force for pressing the endless belt against said heat roller than a pressing force of the nip roller on the exit side of said nip portion for pressing said endless belt against said heat roller.

3. A fixing device as claimed in Claim 1,

wherein said contact member is a heat roller; and

wherein said pressing member includes a plurality of rollers, an endless belt run about said plural rollers and capable of moving in a cycling manner and a pressure pad disposed inside of said endless belt in a non-rotatable state for holding said endless belt in pressure contact with said heat roller for the overall length of said nip portion, thereby establishing said nip portion.

4. A fixing device as claimed in Claim 1,

wherein said contact member includes a heat roller;

wherein said pressing member includes a plurality of rollers in pressure contact with said heat roller, said plural rollers cooperating with said heat roller to define said nip portion; and

wherein the roller on the inlet side of said nip portion has a higher pressing force on said heat roller than that of the roller on the exit side of said nip portion.

5. A fixing device as claimed in Claim 4, further comprising

heating means for heating said roller on the exit side.

6. A fixing device as claimed in Claim 1, further comprising electric-field generating means for generating, in said nip portion, an electric field directed to move the toner in the liquid developer toward said recording medium.

7. An image forming apparatus comprising:

image forming means for forming a toner image on an image carrier by using a liquid developer including a toner dispersed in a carrier liquid;

transfer means for transferring the toner image, formed by said image forming means, to one side of a recording medium; and

fixing means having the same arrangement as the fixing device as claimed in Claim 1 and operating to fix the unfixed toner image to said recording medium, the unfixed toner image transferred to the one side of said recording medium by said transfer means.

8. An image forming apparatus comprising:

image forming means for forming a toner image on a surface of an image carrier by using a liquid developer in which a toner is dispersed in a carrier liquid; and

transferring/fixing means for concurrently transferring and fixing said toner image to one side of a recording medium,

wherein said transferring/fixing means includes a contact member arranged to be able to contact a back side of said image carrier and a pressing member pressing on the other side of said recording medium for pressing said recording medium against the surface of said image carrier, and performs the transferring/fixing process by passing said recording medium and said image carrier through a nip portion defined between said contact member and said pressing member; and

wherein a nip pressure at an inlet site of said nip portion is set higher than a nip pressure at an exit site of said nip portion.

9. A fixing device comprising:

a heat contact member arranged to be able to contact one side of a recording medium while heating the one side of the recording medium on which side an unfixed toner image is carried, the toner image formed with a liquid developer including a toner dispersed in a carrier liquid; and

a pressing member pressing on the other side of said recording medium for pressing said recording medium against said heat contact member, the fixing device operating to fix said unfixed toner image to the one side of said recording medium by passing said recording medium through a nip portion defined between said heat contact member and said pressing member,

wherein a nip pressure at an inlet site of said nip portion is set lower than a nip pressure at an exit site of said nip portion.

10. A fixing device as claimed in Claim 9,

wherein said heat contact member includes a heat roller;

wherein said pressing member includes a plurality of rollers including two nip rollers adjoining said heat roller; and an endless belt run about said plural rollers and capable of moving in a cycling manner, and establishes said nip portion by holding a part of an outside surface of said endless belt in pressure contact with said heat roller by means of said two nip rollers; and

wherein out of said two nip rollers, the nip roller on the inlet side of said nip portion has a lower pressing force for pressing said endless belt against said heat roller than a pressing force of the nip roller on the exit side of said nip portion for pressing said endless belt against said heat roller.

11. A fixing device as claimed in Claim 9,

wherein said heat contact member is a heat roller,

wherein said pressing member includes a plurality of rollers, an endless belt run about said plural rollers and capable of moving in a cycling manner and a pressure pad disposed inside of said endless belt in a non-rotatable state for holding said endless belt in pressure contact with said heat roller for the overall length of said nip portion thereby establishing said nip portion.

12. A fixing device as claimed in Claim 9,

wherein said heat contact member includes a heat roller;

wherein said pressing member includes a plurality of rollers in pressure contact with said heat roller, said plural rollers cooperating with said heat roller to establish said nip portion; and

wherein a roller on the inlet side of said nip portion has a lower pressing force on said heat roller than a pressing force of a roller on the exit side of said nip portion.

13. A fixing device as claimed in Claim 12, further comprising heating means for heating said roller on the exit side.

14. A fixing device as claimed in Claim 9, further comprising electric-field generating means for generating, in said nip portion, an electric field directed to move the toner in the liquid developer toward said recording medium.

15. An image forming apparatus comprising:

image forming means for forming a toner image on an image carrier by using a liquid developer including a toner dispersed in a carrier liquid;

transfer means for transferring the toner image, formed by said image forming means, to one side of a recording medium; and

fixing means having the same arrangement as the fixing device as claimed in Claim 9 and operating to fix the unfixed toner image to said

recording medium, the unfixed toner image transferred to the one side of said recording medium by said transfer means.

16. An image forming apparatus comprising:

image forming means for forming a toner image on a surface of an image carrier by using a liquid developer including a toner dispersed in a carrier liquid; and

transferring/fixing means for concurrently transferring and fixing said toner image to one side of said recording medium,

wherein said transferring/fixing means includes a heat contact member arranged to be able to contact a back side of said image carrier while heating the back side thereof and a pressing member pressing on the other side of said recording medium for pressing said recording medium against the surface of said image carrier, and performs the transferring/fixing process by passing said recording medium and said image carrier through a nip portion defined between said heat contact member and said pressing member; and

wherein a nip pressure at an inlet site of said nip portion is set lower than a nip pressure at an exit site of said nip portion.